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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,401	11/01/2006	Gilbert Legeay	0510-1148	9674
465 7590 02/04/2009 YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			EXAMINER PURDY, KYLE A	
			ART UNIT 1611	PAPER NUMBER
			MAIL DATE 02/04/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/591,401

Applicant(s)

LEGEAY ET AL.

Examiner

Kyle Purdy

Art Unit

1611

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9, 10 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 10 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Application

1. The Examiner acknowledges receipt of the amendments filed on 10/23/2008 wherein claims 1-7 and 9-10 have been amended, claims 8 and 11-13 have been cancelled and claims 14-16 are newly added.

2. Claims 1-7, 9, 10 and 14-16 are presented for examination on the merits. The following rejections are made.

Response to Applicants' Arguments

3. Applicants arguments filed 10/23/2008 regarding the rejection of claims 4-7 made by the Examiner under 35 USC 112 second paragraph have been fully considered and they are found persuasive. This rejection has been WITHDRAWN by amendment to the claims.

4. Applicants arguments filed 10/23/2008 regarding the rejection of claims 1, 3, 6 and 7 made by the Examiner under 35 USC 102(b) over Braun (EP 0194770) have been fully considered and they are found persuasive. This rejection has been WITHDRAWN by amendment to the claims.

5. Applicants arguments filed 10/23/2008 regarding the rejection of claims 1-10 made by the Examiner under 35 USC 103(a) over Braun in view of Stovicek (US 4990547) have been fully considered and they are found persuasive. This rejection has been WITHDRAWN by amendment to the claims.

New Rejections, Necessitated by Amendment
Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. **Claims 1-4, 6, 7, 9, 10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (JP H11-209622, published 08/03/1999, machine translation provided) in view of Suehiro et al. (US 2002/0033114, published 03/21/2002).**

9. Kimura is directed to antifouling coatings for reduction of surface contamination. The coating material contains colloidal silica and a vinyl copolymer in an aqueous medium (see claim 1). Exemplified copolymers comprising polyacrylate and polymethacrylate (see [0018]) as well as cellulose derivatives, polyvinyl alcohols and polyacrylamides (see [0027]; see instant claim 7). The polymer of the composition is to be from between 0.1-20% by weight of the composition (see [0017]; see instant claims 6 and 15). The amount of silica in the composition is from about 0.1-20% by weight of the composition (see [0017]; see instant claim 9).

10. Kimura fails to teach the antifouling composition as being applied to a mineral surface.

11. Suehiro is directed to antifouling paint compositions and coated products. It is taught that antifouling compositions may be applied to a variety of surfaces including metallic materials such as steel and titanium, minerals such as glass, concrete ceramics and stone (see [0048]; see instant claims 1-4 and 14). Means for applying the antifouling coatings include spraying, coating, dipping and brushing (see [0042]; see instant claim 10).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kimura and Suehiro with a reasonable expectation for success in arriving at a method of applying a coating consisting of silica and a hydrophilic polymer dispersed in water wherein the resultant coating reduces contamination by microorganisms. One would have been motivated to search the art to identify surfaces for which Kimura antifouling composition would be beneficial. Suehiro teaches that antifouling coatings are particularly useful on mineral and metallic surfaces including ceramic, glass, porcelain and steel. One would have been motivated to coat such surfaces with a reasonable expectation for success in reducing contamination of that surface with microorganisms. It's noted that Kimuras claims include a 'residue of a cationic polymerization activity kind' material. However, it is the opinion of the Examiner that this 'residue' actually referring to a material which initiates the polymerization of the vinyl monomers and facilitates the binding of the polymer to the surface of the silica particle. This is evidenced by the recitation of the term 'via' which means 'by route or way of'. With respect to the requirement of a minimum surface area, this is a value that would readily obtainable. One, knowing that the composition of Kimura had antifouling properties, would endeavor to apply the composition to any and all surfaces in need of its antifouling properties. If

the result was a surface which had a surface area of at least 0.1 m^2 , then this would not be a product of innovation, but rather one of ordinary skill and common sense because the ordinary lay person would be readily capable of arriving at such a dimension. Therefore, the invention as a whole is *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in absence of evidence to the contrary.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (JP H11-209622, published 08/03/1999, machine translation provided) in view of Suehiro et al. (US 2002/0033114, published 03/21/2002), as applied to claims 1-4, 6, 7, 9, 10, 15 and 16 above, and further in view of Watts (US 5397385, published 03/14/1995).

13. Suehiro teaches that antifouling coatings are useful for preventing the binding of aquatic organisms to surfaces.

14. Kimura and Suehiro fail to teach applying an antifouling coating to the surface selected from a table, floor, culinary work top, bed, fermentation reactor and fluid circulation pipes.

15. Watts is directed to antifouling compositions. It is disclosed that antifouling compositions are useful for surfaces that art in frequent contact with water environments. A disclosed surface for use of antifouling compositions is that of water pipes (see column 5, line 40; see instant claim 5).

16. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kimura, Suehiro and Watts with a reasonable expectation for success in arriving at a method of applying an antifouling coating to water pipes. One would have been motivated to apply the coating of Kimura to a water pipe because it would

reduce the potential risk of contamination to that water supply by inhibiting the unwanted buildup of microorganisms. Therefore, the invention as a whole is *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in absence of evidence to the contrary.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

18. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle A. Purdy whose telephone number is 571-270-3504. The examiner can normally be reached from 9AM to 5PM.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau, can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*/Kyle Purdy/
Examiner, Art Unit 1611
January 22, 2009*

*/David J Blanchard/
Primary Examiner, Art Unit 1643*